PROGRAMMABLE WEAK WRITE TEST MODE (PWWTM) BIAS GENERATION HAVING LOGIC HIGH OUTPUT DEFAULT MODE

ABSTRACT OF THE INVENTION

The present invention employs a bias voltage having a selectable magnitude to bias a weak write pull-down transistor in a write driver of a static random access memory (SRAM) array. A programmable weak write test mode (PWWTM) bias generator includes an output signal that is a logic high in a default mode when a WWTM is not active. When the WWTM is active, the generator output signal is the bias voltage having the selectable magnitude. The default mode logic high is actively maintained when the generator output is connected to a load, such as the write driver of the SRAM array. A WWTM-enabled SRAM system includes the PWWTM bias generator. A method of driving a WWTM-equipped SRAM includes generating and applying the output signal to a gate of a weak write pull-down transistor of the SRAM array write driver in the default mode and the WWTM.